

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparative Effect of Buteyko Breathing Technique and Lotorp Method Among COPD

#### Protocol summary

##### Study aim

To find out comparative effect of Buteyko Breathing Technique and Lotorp Method among COPD patients

##### Design

40 participants will be recruited. Two parallel groups, double blinded, randomized clinical trial with pre and post assessment.

##### Settings and conduct

Pulmonary Ward Gulab Devi Educational Complex

##### Participants/Inclusion and exclusion criteria

Inclusion Criteria Patients between age group of 40-65 years. Patients of both genders. Patients with mild or moderate COPD according to the GOLD criteria Exclusion Criteria: Patients with restrictive lung disease. Patients with any infection. Patients having uncontrolled asthma. Pregnant women. Risk of pneumothorax Low resting oxygen saturation(13) Unstable conditions, active infections and neurological condition Patients who cannot comply this technique

##### Intervention groups

Group A: It will be treated by Buteyko Breathing Technique Group B: It will be treated with Lotorp Method

##### Main outcome variables

Dyspnea measured using Modified Medical Research Council (MMRC) scale, Chest Expansion measured using Measuring tape, Pulmonary Function Tests using Diagnostic Spirometer and St George Respiratory Questionnaire

#### General information

##### Reason for update

##### Acronym

Effects of Lotorp Method Among COPD.

##### IRCT registration information

IRCT registration number: **IRCT20191117045462N24**

Registration date: **2024-08-29, 1403/06/08**

Registration timing: **retrospective**

Last update: **2024-08-29, 1403/06/08**

Update count: **0**

##### Registration date

2024-08-29, 1403/06/08

##### Registrant information

###### Name

Wajeeha Zia

###### Name of organization / entity

Riphah International University

###### Country

Pakistan

###### Phone

+92 42 35126110

###### Email address

wajeeha\_z@yahoo.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2024-07-16, 1403/04/26

##### Expected recruitment end date

2024-07-16, 1403/04/26

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparative Effect of Buteyko Breathing Technique and Lotorp Method Among COPD

##### Public title

Comparative Effect of Buteyko Breathing Technique and Lotorp Method Among COPD

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

**Inclusion criteria:**

Patients between age group of 40-65 years Patients of both genders. Patients with mild or moderate COPD according to the GOLD criteria

**Exclusion criteria:**

Patients with restrictive lung disease. Patients with any infection. Patients having uncontrolled asthma. Pregnant women Risk of pneumothorax Low resting oxygen saturation unstable conditions, active infections and neurological condition Patients who cannot comply this technique

**Age**

From **40 years** old to **60 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **40**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Taking into account the above mentioned inclusion and exclusion criteria, patients will be recruited into two groups labeled as 0 for group A and 1 for group B by simple random sampling through sealed opaque enveloped.

**Blinding (investigator's opinion)**

Double blinded

**Blinding description**

The study will be double blinded. The assessor physiotherapist and the patient both will be blinded. Although the consent form will be taken from the patient. But the patient will not be aware of the study. Accessor physiotherapist will be involved in the study. He or She must have 2 or 3 year experience in relevant domain. He will access the patient by defined outcome measure tools before the start of study at the end

**Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Riphah college of rehabilitation & Allied Health Sciences

**Street address**

25 Raza Saeed Rd, Bhabra Block M Gulberg III, Lahore, Punjab 25-M Block, Lahore

**City**

Lahore

**Postal code**

54660

**Approval date**

2024-07-16, 1403/04/26

**Ethics committee reference number**

RCS&AHS/REC/MS-CPPT

**Health conditions studied****1****Description of health condition studied**

Chronic Pulmonary Obstructive Disease

**ICD-10 code**

Chronic br

**ICD-10 code description**

J44.8

**Primary outcomes****1****Description**

Pulmonary function

**Timepoint**

Pre- Post Treatment

**Method of measurement**

Spirometer ( Diagnostic)

**2****Description**

Dyspnea

**Timepoint**

Pre- Post Treatment

**Method of measurement**

Modified Medical Research Council Scale (MMRC)

**3****Description**

Chest expansion

**Timepoint**

Pre- Post Treatment

**Method of measurement**

Measuring Tape

**4****Description**

Disease Specific

**Timepoint**

Pre- Post Treatment

**Method of measurement**

St Georges Respiratory Questionnaire (SGRQ)

**Secondary outcomes**

empty

## Intervention groups

### 1

#### Description

Intervention group A: Buteyko breathing technique: Treatment to this groups will be performed twice a day, 3-5 times per week, for 3-4 months. . The idea behind it is that people tend to hyperventilate -to breathe faster and more deeply than necessary. Subjects in the Buteyko a groups were trained for 3-5 days and instructed to practice the exercises for 15 minutes twice daily, and for three months duration. Step 1: The "Control pause (CP)" breathing test Step 2: Shallow breathing Sit up straight Step 3: Putting it together Take Control pause Each patient was trained by Buteyko breathing technique twice per week, and the session was about (20 min). The first week each patient of this group trained by Buteyko breathing technique intensively for 4 days then the following 3 weeks were 2 sessions per week. The time of the session was in the morning at least two hours after meals. Each patient performed the BBT by himself at home twice daily (in the morning and in the evening, at least 2 h after meals) during the time of the study Buteyko Breathing Technique.

#### Category

Rehabilitation

### 2

#### Description

Intervention group B : Lotorp Method: Lotorp Method is a two-part therapy involving daily breathing exercises and massage of thoracic muscles at the clinic every third week. The treatment at the clinic is performed for a time of about 60 min. It starts massage based on classic Swedish massage, combined with trigger point treatment if the therapist finds specially tense points in the muscles. On the larger muscles are performed a little faster rubbing movement. The patient lies on his/ her stomach when the back is treated. Back muscles and tendons treated with deep massage are: Erector spinae, (the sacro spinal system), Rhomboids major and minor, Quadratus lumborum, and external intercostal muscles, Sternum (several muscles attach to the sternum, and a rubbing movement is used to stimulate these attachments), Subclavius, Serratus anterior (upper parts), Scalene Sternocleidomastoids, Diaphragm (external front part), abdominal muscles (transverses abdominis, oblique, internus abdominis, externus abdominis and rectus abdominis). After this exhalations are manually assisted during exhalation by pressing the chest, slowly but powerfully. The hands are placed along the side of the chest and deep exhalations are performed 10 times. Then the hands are moved to the upper parts of the chest. A similar manual pressure during exhalation is performed 5 times. After this the patient is instructed to breathe in and out so that the thorax is moving as much as possible. Treatment to this groups will be performed twice a day, 3-5 times per week, for 3-4 months.

#### Category

Rehabilitation

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Gulab Devi Trust Hospital Lahore

##### Full name of responsible person

Gulab Devi Trust Hospital Lahore

##### Street address

F8MV+5HW, Ferozpur Rd, Nishtar Town, Lahore, Punjab 54000

##### City

Lahore

##### Postal code

05307

##### Phone

+92 42 99230247

##### Email

jannatfarooq89@gmail.com

##### Web page address

### 2

#### Recruitment center

##### Name of recruitment center

Gulab Devi Trust Hospital

##### Full name of responsible person

Gulab Devi Trust Hospital Lahore

##### Street address

F8MV+5HW, Ferozpur Rd, Nishtar Town, Lahore, Punjab 54000

##### City

Lahore

##### Postal code

54660

##### Phone

+92 42 99230247

##### Email

jannatfarooq89@gmail.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Riphah International University

##### Full name of responsible person

Wajeeha Zia

##### Street address

25 Raza Saeed Rd, Bhabra Block M Gulberg III, Lahore, Punjab 25-M Block, Lahore

##### City

Lahore

##### Postal code

54660

##### Phone

+92 42 111 747 424

##### Email

wajeeha\_z@yahoo.com

##### Grant name

Nil  
**Grant code / Reference number**  
**Is the source of funding the same sponsor organization/entity?**  
No  
**Title of funding source**  
Riphah International University Lahore  
**Proportion provided by this source**  
15  
**Public or private sector**  
Private  
**Domestic or foreign origin**  
Domestic  
**Category of foreign source of funding**  
*empty*  
**Country of origin**  
**Type of organization providing the funding**  
Academic

## Person responsible for general inquiries

### Contact

**Name of organization / entity**  
Riphah International University  
**Full name of responsible person**  
Muhammad Umer Arshad  
**Position**  
Head of Department  
**Latest degree**  
Master  
**Other areas of specialty/work**  
Physiotherapy  
**Street address**  
EXPERT CONSULTANT CLINIC 627, Khayaban e Jinnah,  
Iqbal Avenue Cooperative Housing Society - Phase 1,  
Airline Society, Lahore Punjab  
**City**  
Lahore  
**Province**  
Punjab  
**Postal code**  
57600  
**Phone**  
+92 42 111 747 424  
**Email**  
omerkhushi0101@gmail.com

## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**  
Riphah International University  
**Full name of responsible person**  
Wajeeha Zia  
**Position**  
Assistant Professor  
**Latest degree**  
Ph.D.  
**Other areas of specialty/work**  
Physiotherapy  
**Street address**

25 Raza Saeed Rd, Bhabra Block M Gulberg III,  
Lahore, Punjab 25-M Block, Lahore

### City

Lahore

### Province

Punjab

### Postal code

54660

### Phone

+92 42 111 747 424

### Email

wajeeha\_z@yahoo.com

## Person responsible for updating data

### Contact

#### Name of organization / entity

Riphah International University

#### Full name of responsible person

Jannat Farooq

#### Position

Student

#### Latest degree

Master

#### Other areas of specialty/work

Physiotherapy

#### Street address

25 Raza Saeed Rd, Bhabra Block M Gulberg III,  
Lahore, Punjab 25-M Block, Lahore

#### City

Lahore

#### Province

Punjab

#### Postal code

54660

#### Phone

+92 42 111 747 424

#### Email

jannatfarooq89@gmail.com

## Sharing plan

### Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

### Justification/reason for indecision/not sharing IPD

There is no further information

### Study Protocol

No - There is not a plan to make this available

### Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

### Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

### Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

### Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

### Data Dictionary

Undecided - It is not yet known if there will be a plan to

make this available